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DISSERTATION

CONCERNING

Inoculation

OF THE

SMALL-POX.

a.3968

BOSTON, N. E.

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DISSERTATION

CONSTITUTION

OF THE

COLLEGE OF THE HOLY TRINITY

IN THE CITY OF BOSTON

BY

J. M. A. F. O. A.

OF THE

SCHOOL OF THE HOLY TRINITY

IN THE CITY OF BOSTON

1850

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SIR,

*Sincere and disinterested regard for
the good of my Neighbours, is the
motive of this present Publication;
without Passion or Prejudice, laying
aside all useless Speculations and Sub-
tilities, as out of the Question in cases of Fact
and Experience; I shall impartially relate, The*

DEDICATION.

History, Success and, Benefits of the Method of receiving the Small Pox by Incisions or Inoculation, as it is called, so far as it has come to my knowledge. Altercations in matters of Fact obvious to the Senses, are trifling and absurd ; let Facts be truly related and set in a proper Method or Light, the generality of Mankind are capable to judge for themselves. I shall not be too free with Names of Persons, only where the vouching of Facts may seem to require it. There have been too early and strong Prejudices, both for and against this Method ; People have been partially Credulous or Incredulous of Facts, as they make for or against their respective Opinions, viz, In some it savoured much of Credulity, Levity, and Novelty, to be bigotly Zealous for it ; in others it show'd too much of strong Prejudices, Passions or Obstinate Humour, to be furiously against it : they seem to have acted the fairest part, who exclaiming only against rash and irregular procedure, were willing to wait patiently until time and a cautious experience should direct their judgments.

MANY great discoveries in Physick have been opposed by the generality of the Faculty at their first appearance, Antimonial Vomits, Mercurial Preparations, the Peruvian Bark, &c. had this fate ; but are now by experience proved to be the best of Medicines. It was not by reasoning we learnt that the Bark cures Agues, that Opium relieves Pain, or Mercury carries off the Venereal taint ; it was by accident, but afterwards confirmed by Experience.

DEDICATION.

perience. How mean or rash soever the beginning of the Practice of Inoculating the Small Pox may have been; if many Years practised by Old Women only, and neglected by the Sons of Art in Turkey; if in another part of the World a Person of no Literature and of habitual Rashness, from a third hand hearsay of an ever Credulous person, first attempted it indifferently on all who would pay for it, without regard to Age, Sex, Constitution, other Circumstances, and Caution's which tryals of such Consequence may require; as it is one of the inconveniences of Humane Life, that all the World over, Ignorance, Assurance and Rashness pushes on some to attempt without fear or discretion what would make the most exquisite Artist tremble to touch; nevertheless if in the Event by repeated experiments it prove useful, it ought to be embraced.

WE find by some Years Experience, that the Small Pox abstractedly considered, received by Inoculation is not so Fatal and the Symptoms frequently more mild, than in the accidental Contagion; yet it is not of that certain safety, to exempt it from being reckoned precarious, and therefore requires Discretion in applying it to proper Subjects, and Judgment in managing the Distemper so receiv'd.

THE reason of my Addressing this to You, Sir, Is as a sort of Publick Acknowledgement of your Friendship; but more especially because of your noted Probity, Integrity, and Impartiality in all Affairs: in your Office with an unbiassed Duty to the Crown,
You

DEDICATION!

You are the Darling of all fair Traders ; and to speak in Medical terms, Integrity seems to be in the Constitution of your Family, Witness, The Honourable Sir JOSEPH JERKILL, Master of the Rolls, your Uncle, who without any biassed regard to Times, Persons, or Parties, has by every body been acknowledged always a Patriot. Panegyrick has a great share in most Dedications, but as my humour and genius does not lay that way, and your generous Temper does not allow of it, I forbear,

SIR,

Your much Obliged

Humble Servant,

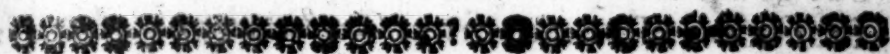
W. D.



A Dissertation

CONCERNING

Inoculation of the *Small-Pox*.



THE *Circassians* living between the *Euxine* and *Caspian* Seas, time out of mind, have carried on a considerable Trade with *Turky* and *Persia*, in Selling their own Children, or young Slaves taken by Incurfions from their Neighbours ; but more especially their *Young Women* being very Beautiful, are in great request in the *Seraglios* and *Harams* of the *Turks* and *Persians* : while they are Children, they procure to them the *Small Pox* by *Inoculation* or otherways ; those who retain their Beauties, are *Merchantable*, and bear a good Price : So that the first Intention of *Inoculation* was not the *Saving of Life*, but as a more ready way of procuring the *Small-Pox*, than by accidental Infection ; that they might know

know what *Beauties* were proof and would answer the charge of being carried to *Market*.

THIS *Circassian* Trade conveyed this Practice into *Turky*, where the *Turks* at first from their Principle of *Predestination*, would not come into it; only the *Old Women* of the *Greek Church*, practised it among the meaner sort of People for some considerable time, says *Pylarinus*, and that *A. 1701*, it first began to be used amongst the better sort in *Constantinople*. His first Patients, were the Four Sons of a *Noble Greek*. In some short time after this *Bellini* in *Italy*, writes an account of it to *Dr. Pitcairn* in *Scotland*, desiring his Opinion; *Dr. Pitcairn* was very fond of it, but could not persuade himself to venture it in Practice. *Timonius* from *Constantinople A. 1709*, sends to the *R.S. in London* an account of this Practice, with a very strong recommendation thereof. *Pylarinus* the *Venetian Consul A. 1714*, sent to the *Royal Society* a more modest account of the same. The *Small Pox* spread in *Boston, New-England, A. 1721*, and the Reverend *Dr. Cotton Mather*, having had the use of these Communications from *Dr. William Douglass*; surreptitiously, without the knowledge of his Informer, that he might have the honour of a *Newfangled* notion, sets an undaunted Operator to work, and in this Country about 290 were *Inoculated*.

THESE Communications of *Timonius* and *Pylarinus* in *England* were regarded as *Virtuoso* amusements, until *April 1721*, *Mr. Maitland* a Surgeon (who in *March 1717*, at *Pera* near *Constantinople* had seen the *British Ambassadors* Son et. 6, *Inoculated* by an old *Greek*) from a few

scanty observations but mostly from hearsay, in quality of a *Traveller* was willing to broach a new thing: he inoculated Miss *Wortley* *æt.* 4, and Dr. *Keiths* Son *æt.* 6 in *May*, who all had a very favourable distinct sort. This encouraged many to think well of it, and in particular *The Royal Family* were induced to cause make trial of it; accordingly in *August* it was practised on 6 *Condemned Criminals* in *Newgate*, *æt.* 19 ad 36, no Medicine was used, all was left to nature assisted by a strict and regular Diet, they all received the Infection, and had a favourable *Small-Pox*, excepting *Evans* who had no symptom neither did his Incisions inflame, having had the *Small-Pox* in *Goal* last *September*. Some time after this Mr. *Maitland* Inoculates Mr. *Batts* Daughter *æt.* 2 & half, *Joseph Heath* *æt.* 7, and *Benj. Heath* *æt.* 3; being in all eleven persons Inoculated from *April* to *December*: thus gradually and circumspectly did the people in *England* proceed in a Practice, which might be of consequence good or bad; few of the *English Physicians* favoured it at first, but in some short time Dr. *Mead* began to countenance it, as did also Sir *Hans Sloan*.

In the Spring following, there were Inoculated by order of the *Ps. of Wales*, 6 *Hospital Children* *æt.* 6 ad 20; four of them had it, and very favourable one of them received no Infection, having evidently had the *Small-Pox* before; the sixth had accidents from Inoculation, which continued in a lesser degree for eleven weeks, and then had a favourable *Small-Pox*. Soon after these, were Inoculated 5 more *Hospital*

hospital Children *et.* 8. to 14 weeks, 3 of them had no *Small Pox*, these bodies were *morbid*. April 19th. 1722. Mr. Amyand Serj. Surgeon, ingrafted the *Small Pox* on Ps. *Amelia et.* 11, and Ps. *Carolina et.* 9. they had them favourable; this would have been a very great encouragement and countenance to this Practice, if unluckily it had not happened that in the same month of April dy'd the E. of *Sunderland's Son et.* 2 & half, and next month dy'd my Lord *Bathurst's* Servant *et.* 19 of the *Small-Pox* procured by *Inoculation*: from this time the Practice continues proceeding, but at a much slower pace than was expected; so that from the accounts of the Ingenious Dr. *Jurin R. S. Secr.* in all *Great Britain* there were *Inoculated* in the first 3 years of the Practice only 477; the Principal *Inoculators* being Dr. *Nettleton* in *Torkshire* 80 Patients, Mr. *Amyand* Serj. Surgeon 62, Mr. *Maitland* 85, &c.

WHEN this Practice was first attempted, some Physicians in *England* and *New-England* particularly Dr. *Friend*, from the experience of disorders arising in the *Animal Oeconomy* by some foreign liquids being directly admitted into the current of *Blood*, by analogy were afraid of the like in case of *Inoculation*; but repeated tryals soon convinced them of the safety of this method. In some of the first tryals the produced *Pustules* were either dry without *Pus*, or like a *Spurious Pox* called the *Chicken* or *Swine Pox*, containing no thick digested *Pus* but a thin *Sanies*; hence they alledged that *Inoculation* produced only an *Eruptive Fever* but no *genuine Small-Pox*: but in
after

after tryals, seeing in many the *Pustules* rise with inflamed edges, white & afterwards yellow heads, plump and mellow, and go off about the usual time in yellow Scabs, as also finding them *infectious*; they quickly gave up the point, and declared them *genuine*. The *Odium* of spreading infection continues a disadvantage; The ingrafting of foreign *constitutional ails* is a stumbling block to the nice and cautious.

THE first *Promoters of Inoculation*, on the other hand, were much more extravagant in their *deviations*; from *bearsay* and a few scanty experiments with much *credulity* and *rashness*, they positively and without reserve, published as follows; and in some instances contradict one the other and themselves.

TIMONIUS A. 1713. says, These last years some thousands have been *Inoculated* and none died, while at the same time half the affected died in the common way at *Constantinople*; and what is valued by the *Fair*, never leaves Scars nor Pits. Infants have no *Convulsions* with it. He knew but of one Boy who did not receive the Small-Pox by *Inoculation*, his incisions did not swell. The *Pustules* never contain a laudable Pus, but a thin watery *Sanies*.

PYLARINUS the *Venetian* Consul, the most modest of all its *Promoters*, says, I was not an *Eye-witness* to all that I now relate, I had a great part of it by *bearsay*. The *Operatrix* required the *Winter* season. The *Eruption* generally begins the 7th day; there are instances tho' but few, where the *Eruptions* have appeared the first day. *Inoculation* sometimes doe

not take place. In some, tho' very seldom, in the glandulous parts & *Emunctories*, Abscesses do arise after some time.

Dr. Le Duc a Native of *Constantinople*, and who was himself inoculated, assured Dr. *Jurin*, that out of many thousands that in the ipace of about 40 years past, had been inoculated in and about *Constantinople* by one Greek woman, not so much as one person has miscarried.

Mr. *Maitland's* account. Dying is a case which never happened in *Ingrasting*. The giving the Small-Pox by *Inoculation*, never yet failed, nor never can. No Headakes, Thirst, Inquietudes, and other Fever Symptoms, not one in a thousand. Dr. *Nettleton* who inoculated great numbers, says from his own experience : *The Symptoms are as in the natural way, a quick pulse, great heat and thirst, pain in the Head and Back, and about the region of the Stomach, Vomiting, Drowsiness, Startings, and sometimes Convulsions.* Mr. *Maitland* further says, The *Pustules* never leaves any *Pits* behind them : And in his *Vindication*, printed in Autumn, 1722. says, that out of about 500 *Inoculated*, by that time only 3 had died : Dr. *Jurin* who made it his business, as being R. S. Sec. to be well informed, *exeunte*, A. 1722 says that only 182 were *Inoculated* by that time. This imposition on Mankind is too gross : what follows is still more gross. In a loose Poetical rapture Mr. *Maitland* says, that supposing 200 or 300 Sick in the *natural* way, and as many in the *Inoculated* way, all under the cure of unskilful and unexperienced people, as few would *Survive* in the *Natural* way, as would *Die* by the *Inoculated* way. Dr.

Dr. Brady of Portsmouth. Not so much as
 me ever died of Inoculation rightly performed,
 it always is favourable. What wretched work
 (says Dr. Brady) the Gentleman (Dr. C. M.)
 who writes the Letter to Mr. Dummer from
 New-England makes of his accounts.

Dr. Harris says *Inoculation* is a certain reme-
 dy against the *confluent* kind.

Mr. Colmans *Observations in New-England.*

A Negro Slave in discourse told him, That *Ino-
 culation* was practised in their *Cuntry*, but of
 how long standing he could not tell; that God
 told it to poor Negroes to save their lives, for
 they had not knowledge and skill as we; when the
Small-Pox gets into a few Families in a *Town*,
 The whole *Town* is inoculated in one week, &
 are well the next, none die, no blains nor boils
 follow the Practice.

Mr. Boylston's first account. There is no truth
 in the reports of peoples dying under *Inoculation*.
Timonius well known to some in Boston, who also
 actually knew the truth of his matters of fact;
 this sort of Quackery is only fit for a Stage in a
 Country Market Town. In his second account,
 published, A. 1726. He complains much that he
 had heard but of few who have had the benefit of
Inoculation in England. N. B. We are to under-
 stand that business running low with him here,
 he went for London, and with the character of
 an experienced Inoculator, expected a profita-
 ble encouragement there, but was entirely dis-
 appointed, not having *Inoculated* one person there,
 so far as I can learn; *In culation* in London had
 not as yet got into the hands of Quacks. He
 tells

tells us he had such *Faith* in the accounts that Dr. Mather gave him of Inoculation, that he could have ventured the first tryal upon himself ; in a few lines following (forgetting himself) he tells us of his great *fright* (as he calls it) on account of his *Sons Illness*, *not having any directions from Timonius and Pylarinus concerning this Practice* : these are his own words, by which he unthinkingly exposes his own *Rashness and Inadvertency*.

The best of Men have some *Foible* : that of Dr. Mathers was *Credulity* ; it was upon his Authority that our *New-England Inoculation* was carried on. I shall mention a few Instances of this *weakness* from his own *Letters* concerning Inoculation published in *London* : in one Letter Dated *March 1722* He tells the world, That *A. 1721. in Boston*, some *Cats* had a regular *Small-Pox* and died of it ; that during the *Small Pox*, the *Pigeons* and *Dunghill Fowls* did not lay nor hatch, *that he never knew Blistering miss of saving life in the Small-Pox, &c.* In his Letter communicated to the R. S. by Mr. Newman in favour of Inoculation he says, *the Patient is more healthy after Inoculation, it is usefull to Women in Child-bed, it dries up tedious running Ulcers, makes the crazy consumptive people hearty, and rids people of their former maladies.* Thus he makes a *Panacea* of it. To allow of such gross & bold assertions without disproving of them, would be leading Mankind into a *Snare*.

ALTHO' *Levity & Credulity* brought people into it at first, without waiting the effects of a reasonable number of *Experiments*, most of the *Anti-Inoculators*

Inoculators from repeated tryals do now acknowledge, that *Inoculation* generally speaking is a more easy way of undergoing the *Small-Pox* Illness, then where the Infection is received by *accidental contagion*; but its Salutariness falls much short of the *extravagant recommendations* given of it by its *Patrons*; which were very unfair, because it appears at that time they knew but little of the *Practice*.

THIS *Method*, to speak impartially, is a considerable improvement in *Physick*; but we can not say that it *Prevents a bad sort*, as sure as a *Pleuresy* is cured by *V. S.*, an *Intermitting Fever* by the *Peruvian Bark*, a *chlorosis* by *Chalybeats*, *Venereal Ails* by *Mercury*, &c. In short, it is no infallible Method of *alleviating* the Distemper, but in many Instances has proved precarious. Some receive the Distemper not at all, some only *Eruptive Fevers*, others to so small a degree as to admit of doubt, others the worst sort, some have Dyed of it, *Impostumetions* and other *Subsequent Ails* rather more than in the natural way, &c.

I shall endeavour to vouch all these particulars chiefly from *Histories* of the first *Centenary Inoculated* in *England*, and in the very words of the *Inoculators* (some of them were too credulous in their first recommendations of it, but they all seem to be very candid in their *Histories of Fact*) which I am ready to produce well vouched. To proceed further down would be too tedious and nothing to the *advantage of the Method*, because the proportion of those who Died in the subsequent Years, is greater than it was in

in the beginning : and to speak ingenuously, I kept a correspondence with respect to the benefits of Inoculation in *England* from *unquestionable Facts*, only for the first two or three Years of its Practice there; but have since, by a sort of indolence been remiss; I know no more of it for those last Years, than any other Person may from the Publick Prints. I can but seldom have recourse to Mr. *Boylstone's* Accounts, because of their being so jejune, lame, suspected, and only in the nature of a *Quack Bill*.

1. *SOME* receive the Distemper not at all. *Pylarinus* says, Inoculation does not always take place. In Dr. *Nettleton's* first parcel it did not take place in two instances. Mr. *Maitland's* 20th, 28th, 29th, 30th, 32d, 42d, &c. it did not Infect. Mr. *A----s* 4th, 10th, and 11th, did not take Effect. In short, from the ingenious Dr. *Furins* account of Inoculation in *Great Britain*, A. 1721, 1722, and 1723, out of 477 by that time Inoculated, 29 had no Small Pox; which is 1 in 16.

2. *SOME* have only Eruptive Fevers. Mr. *Maitland's* 32d, Patient. Dr. *H----n* æt. 26, had only an Eruptive Fever, but no Small-Pox; Mr. *A---d's* Child æt. 17 months, his 4th patient, had only an Eruptive Fever, and a pretty sharp one during 36 hours. Mr. *A---d's* 11th Patient. My L. *M---* a Son to the D. of *D--t.* aged 11 years, had a gentle Eruptive Fever but no Small-Pox.

3. *Others*

3. *OTHERS* to so small a degree, as to admit of doubt. Dr. Nettleton in his Letter 16th December, 1722. says, we are ready to own, that the Operation may sometimes fail: in 3 of my Patients, tho' the wounds did inflame and swell, & discharge considerably, yet the Eruptions were so imperfect, as to leave me a little in doubt.

4. *OTHERS* the worst sort. Pylarinus modestly says, they are most frequently (not always) of the distinct sort; the eldest (*æt.* 18,) of the 4 Sons of a noble Greek, his first Patients, after a course of most violent and dangerous Symptoms narrowly escaped the 14th day. Timonius, who has been found in every thing partial in recommendation of Inoculation, says, that of about 50 who had the Inoculation about the same time, 4 came near the *Confluent* sort, in whom the Eruptions were too sudden, and Symptoms worse. To make some estimate of the *Confluent and Bad sorts*, I shall confine myself to the first *Centenary* in *England*, and in the words of the Inoculators. Dr. Nettleton's 8th Patient, Mr. Sympsons Child dyed the 7th day from Inoculation with *Purple Spots* (the Brother some time before dy'd in the natural way the 4th of Illness full of purple and lived spots.) His 28 Patient *æt.* 5. the elder of two Brothers inoculated about the same time, the younger got thro' the Distemper with a great deal of ease; but the other fared quite otherways, and there appeared some signs of *malignity*, but without danger, he afterwards had a hard Swelling on his Shoulder, &c. (a former Child of this Family

C

ly

ly dyed of a very malignant sort of Small-Pox.) Mr. Maitlands 10th patient *Joseph Heath* at 7. was very ill before the Eruption, had a great load of the *continued kind*, but at last recovered. His 25th Patient Mr. R--ds at. 41, had a great many, some of the *coherent sort*, with pretty sharp invading Symptoms, in some time after he had two boils. His 31st Patient Mr. *Spencer* at 2 & half Son to the E. of *Sunderland* had a mixed sort part *confluent*, he dyed the 11th day *convulsed*, having had a violent *Second Fever*. His 42 Patient Mr. R--gs Second Child had a great many, got over the Small-Pox under the care of two *Physicians*, but in some short time after dies of a *Pthifis*. His 47th Patient a Child of my L. T---ds had a pretty many of the *Coherent sort*. Mr. A--ds 12th Patient My L. *Barthursts* Servant at 19 the Eruption happened in the usual time with a vast quantity of the *confluent kind*, dies the 13th day, having been under the care of Drs. *Arbuthnot* and *Mead*. In June Mr. *Waller* Apothecary in *Gosport*, inoculated his 3 Children, one of them had *very severe symptoms* preceeding the Eruption, had a great many with 3 or 4 patches of the *Fluxed kind*. Thus we find in fair accounts *that 9 in 100 have had bad kinds*; some Inoculators except against Mr. *Symptoms* Child, because the seizure was early.

Dr. *Nettleton* ingenuously writes, That both in the natural and ingrafted sort there are almost *infinite degrees of the Small-Pox*. In Mr. *Boylston's* account with a good assurance he tells us, we had no resemblance of bad symptoms in any, where it was not evident that they were infected

infected in the natural way before. In all his 247 Patients he met with but 5 or 6, and they had received the infection before; whereof 3 were *Confluent* and 3 *handsome sprinkling* as he terms it. How *disingenuous* is it to suppress the Histories of those who had the severe degrees of it; that there were more is certain. The Rd. Mr. Colman in his Book of Observations, p. 4 writes: that some 10 or 12 of this number (the first 100) appeared to have taken the infection in the common way, and accordingly had a *confluent kind or of a fulness* of the distinct sort not known among the Inoculated in the *Levant*. Considering that the other 147 were all in the severest season, and many of them not so well provided for in the adjacent Country Towns, the proportion of *bad kinds* must increase; so in the lowest estimate *there must have been 25 or 30 with bad sorts*.

§. *SOME have died of it*. I shall not descend to particulars, seeing the ingenious Dr. Jurin R. S. Secr. a favourer of this Practice, in his *account of the success of Inoculating the Small-Pox in Great Britain*, writes, that in the years 1721, 1722, 1723. there were inoculated in all *Great Britain* 477, whereof 9 *are suspected to have died*, and deducting the 29 who did not receive the infection there died 9 out of 448, where the Subjects were generally culled, prepared, and all advantages made use of; not including Dr. Nettletons 8th Patient, Mr. Sympsens Daughter, and others in whom the Eruption was early. I know nothing certain these last years concerning the

Small Pox mortality in this way, at times we find some mentioned in the *London News-Papers*; as for instance in the year 1725. *March* 16. dyed Mrs. Eyles, Niece of Sir *John Eyles*, Alderman of *London*, of the Small Pox contracted by Inoculation; *June* 17th dyed of the Small Pox contracted by Inoculation, *Arthur Hill* Esq; Eldest Son of *Viscount Hillsborough*; *August* 12th dy'd of the Small Pox by Inoculation -- *Hurst* of *Salisbury*, Esq; &c.

Mr. *Boylston* writes, that there were only 6 who died of or after Inoculation. The precise number of those who dy'd by Inoculation in *Boston*, I am afraid will never be known, because of the croud of the Sick and Dead while Inoculation prevailed most, the Inoculator and Relations inviolably keep the secret; when it got into *Country Towns* it could not be concealed, and we find that out of 72 or 73 persons inoculated by Mr. *Boylston* in *Roxbury*, and the adjacent *Country Towns*, 5 to have died; this is about 1 in 14. N. B. Mr. *White* was brought from *Roxbury* to *Boston*. In all fair tryals no man of Probity and Candor does stifle facts. Mrs. G-- an ancient Gentlewoman who visited much the Small Pox decumbents of all sorts, whispers that that there were many more. Some Porters who at that time were employed to carry the dead to their Graves, say, that it was whispered in sundry houses where the dead were carried from, that the person had been Inoculated. I could name some who are suspected, but having only hearsay and conjectural evidence I forbear to affront the surviving Relations

lations : I my self am certain of one more who died after *Inoculation* as they express it, having with her Inoculator attended her in her Illness, this was—Housekeeper to Mr. G---bs Apothecary inoculated by himself ; soon after the *variculous* matter was applied to the Incisions, she began to complain, after two days began the *Small Pox Fever*, and in two days more began the Eruption very full, & *confluent* in her face, the Incisions discharged very much, was never delirious ; she died the 12th day of weakness or *Inanition*. Capt. Osborne in his account of the success of the Inoculations in *N. England*, signed by himself, & inserted in the *Phil. Transact.* for Nov. & Decemb. 1721. His words are, There were in all at least 280 persons inoculated that *I knew* of, and I suppose there might be 20 or 30 more, but of those I can give no certain account ; it is to be supposed that he Sail'd for *London*, before Mrs. Serle in *Roxbury* died of her Inoculation because he does not mention her, but after her Death severals were Inoculated ; thus the number of the Inoculated must exceed 300, and 20 or 30 concealed from us, many of them without doubt in their *silent Graves*. Would it be candid in a strenuous Promoter of this Practice, supposing he had suffered much in his *Small Pox* illness, and thereafter a violent *Inflammation* in his Leg, when freely askt the Question, if he had received the Infection by application of variolous matter or by accidental contagion ? to give no positive Answer. Would it be fair in another, after his Child had recovered of the *Small Pox* from Inoculation,

oculation, supposing a Neighbour put the Question seriously, If your Daughter had Died, what would you have said ? his return should be, If she had, *Nobody should have known that she was Inoculated.* Mr. Boylston in his first account says, I have made my experiments on greater numbers than I judge proper to mention.

6. INOCULATION sometimes leaves Impetumations and other ails. Timonius says, two morbid Children *æt.* 3. Died soon after ; it was judged that this means was made use of to send them as useless shades to Charon. Pylarinus candidly writes, *Quibusdam rarissime tamen, ad glandulosas partes et emuntoria post aliquot tempus abcessus erumpunt.* Dr. Nettleton ingenuously tells us, some few after the Small Pox have been subject to other indispositions. For an estimate of their proportion, as before, I confine my self to the first Centenary Inoculated in England. Dr. Nettleton's 23d Patient Mr. Hansons Daughter *æt.* 9 Months, about a fortnight after she was well of the Small Pox, had a painful swelling in one of her Thighs and Inguinal glands, but went off without suppuration, there only remaining a hardness above the Knee for some time. His 37 Patient Mr. Haighs Daughter *æt.* 6. had a subsequent small tumour on the Muscles of the Loins which ripened speedily, was opened and healed. His 38 Patient her Sister *æt.* 18, had such another in her Leg, something deeper, it gave her a great deal of Pain, and discharged a great quantity of matter. Dr. Brady of Portsmouth Inoculated his four Children the eldest Boy in sickning

Sickenings had a *painful swelling* in his Neck, afterwards a swelling in his Lip, and a scratched Pock in his Leg does *imposthumate* and is laid open. His eldest Daughter had a *painful tumour* in her Arm. Mr. Maitlands 25th Patient Mr. R---ds *æt.* 21 in some short time after had two *Boils*. His 40th Patient Sir D--- O---ne had a subsequent *Imposthume Axillæ*. His 41st and 42d Patients *æt.* 13 Months, & 3 Years; in the first one of the Inoculated Arms, did *Imposthumate* and was laid open; the other soon after Dy'd of a *Pthifis* having had an *Imposthume Axillæ* and two small *Boils* in other parts. Mr. A----ds 14th Patient my Lady Betty Daughter to my L. B---y as the Small Pox were a drying away, appeared a large white *tumour* under the *deltoides*, which being opened the *humerus Bone* was found discover'd, it was cured without any sensible exfoliation. Thus eleven in the Hundred had these subsequent ails: I do with all Candor and Sincerity declare that in many Hundreds of Patients I visited in the last Small Pox time, I had not above half a dozen with subsequent Imposthumations or Boils, and having upon this occasion enquired of most of the other Practitioners, I find the proportions were very small when compared with these.

7. WE may confidently pronounce, *That those who have had a genuine Small-Pox by Inoculation, never can have the Small-Pox again in a natural way*, both by reason and experience: but there are some who have had the usual Feverish symptoms, a discharge by their Incisions, with a few
imperfect

imperfect Eruptions, that may be obnoxious to the Small-Pox. One of the 6 Hospital Children inoculated in the Spring 1722. by order of the *Princess of Wales*, had the accidents from Inoculation, and after *eleven weeks had a favourable Small-Pox*. Mr. Degrave Surgeon in *London*, his Daughter was sent to a Nurse with some other persons to undergo Inoculation, at the usual time she had Feverish Symptoms, heats and flushings, and more Sickness than the other persons who had a fair distinct Pock; the Incisions discharged about three weeks, (*Timonius* assured us that if the Incisions swell and discharge, they never after will have the Small Pox) she was purged once or twice, and discharged from her confinement: *after eleven weeks she had a favourable Small Pox*. Dr. Clinch in his Historical Essay of the Small-Pox, asserts, that a Son of Mr. Jones Surgeon at *Oswestry* in *Shropshire* inoculated by the Father, had the Small-Pox, as was judged, by Inoculation; but some short time thereafter *had it severely in the natural way*: In May 1725. the Reverend Mr. Johnson (a noted undertaker of scrophulous Cases) inoculated a Person of distinction in *Chelsea*, who thereupon had a *Rash-like Eruption* and small Fever, afterwards was physicked and sent home as having had the Small Pox, but in a short time after *had the Small-Pox favourable in the natural way*. We have had likewise some instances in the publick Newspaper from *England*. Some of the Inoculators say, that this late subsequent Small-Pox was still the effect of a latent infection received by Inoculation.

It is beyond all dispute, that some of the Inoculated, may have received the Infection before, and that the Small-Pox was from thence: but if an Inoculated Person dies, or has had a hard time of it, to impute it always to a former accidental contagion, is most partial and unreasonable; more especially they seem to be secure in this *Subterfuge*, if the Eruptions happen sooner than the usual time. *Timonius* says the Eruption sometimes is too sudden and of the fluxy kind. *Pylarinus* says the Eruptions generally appear the seventh day, there are some rare instances where it appeared the first day. The Learned Dr. *Huxham* of *Plymouth* writes, A. 1724, & 1725 there was in the Town a sort of *Anomalous Small-Pox*, that appeared in less than 24 hours from the Seizure, and were always of the fluxed kind. Dr. *Farin* gives a very singular instance of the Small Pox appearing in 2 or 3 days, in the forehead of a Nurse, squeezed by a Gentleman in his *delirium* against his naked breast full of the coherent kind in the state of maturation; they observed the regular periods of the distinct kind, and did inflame so as to close up her Eyes by swelling, which afterwards did soon subside by a blister to her neck: therefore *a fortiori*, where the variolous matter is applied immediately to the blood and circulating juices as by Inoculation, why may not the Eruptions in some constitutions, be *premature*. According to the Inoculators themselves the Eruption may be so *Serotine* as eleven weeks, and why may it not sometimes be too *precoc* by some days.

8. IF it is not used-with circumspection in regard to our Neighbours, it is of pernicious consequence to populous and trading Towns by spreading Infection and damping their Trade ; besides the premature deaths of those who do not expect it. As in some constitutions of years the infection is not so apt to spread as in others, to force the spreading of it by this Artificial method no man (excepting one who has less regard for the lives and good of mankind, than the ready Money) will justify. I am told that about 45 years ago the Small Pox got into several Families in *Boston*, and soon went off without disseminating it self. The *Plague* which is reckoned more infectious than the Small Pox was in *London*, from 1602, to 1632, every year there died a few of it, but it did not spread excepting in 1603 there dyed of it 30. 561, and in 1625 dyed 35. 417. The *Small Pox* in *London* some years is far more universal and malignant than in other years, for instance, from the *Bills of Mortality*, A. 1702 dyed of the Small Pox only 311, in the year 1706 dyed 1721, in the year 1719 dies 3229. Last Small Pox left *N. England* very abruptly, while the Promoters of Inoculation were endeavouring to force it into the Country Towns ; but the *Roxbury* deaths baffled their recommendations. To force the spreading of infection by an *unbounded Inoculation* is a hardship upon Mankind, to oblige them to quit their business with their habitations ; means used to save my own life, ought not to endanger my Neighbours. Perhaps it is more infecting than in the common way, because af-

ter the Small Pox confinement is over the Inoculated walk about, and carry with them a sort of *ambulatory Infection*, their Incisions continuing to run a sort of *variolous* matter. In some measure to obviate this clamour, they at first gave out, that the infection from the Inoculated conveyed a better sort : but this point they soon gave up. Mr. Maitland's 9th Patient Mrs. Batts Daughter at Temple near Hartford, gave the infection to 6 Servants in the House, all of them had them very bad and one dy'd, says Mr. Maitland, contrary to my expectation. In Boston Mrs. Esther Webb 13th Patient of Mr. Boylston's was Inoculated, narrowly escaped in the worst sort of confluent kind, the *Salvo* was that she had received it from her Inoculated Father and Mother, and if this be allowed, then it makes our surmise good.

9. *THE Communication of Constitutional Distempers, is a difficulty which will require some series of Years to obviate.* This some may call a *Chimerical* or conjectural fear ; but as all constitution Distempers have some *Idea* or *Seminium* in every drop of our juices, the *acute Distemper* according to its nature soon shows itself, the *Chronical ails* act slowly & imperceptibly on our Bodies. A *Scorbutick* taint may lay latent until some disposing cause happens, the *Arthritick* from its nature will not exert it self till old age, it is very uncertain in what stage of life an hereditary *Venereal Pox* may appear, the *Nephritick*, *Strumous*, *Epileptick*, *Maniack*, &c some times intermit one generation and appear again in the next : thus any

subsequent Chronical ail may occasion inquietude in the minds of the Inoculated, and render them incapable of the greatest happiness in this World,
Mens sana in corpore sano.

As fear, anxiety and despondency or dejection of Spirits are of bad consequence in all Diseases, and more especially in the Small Pox illness ; I cannot avoid taking notice of the Inadvertency or *Inhumanity* of some Inoculation Promoters particularly in this Town, who with *false colourings* expose the Mortality of the Small Pox in the natural way. They harangue thus, *The Small Pox always fatal to New-England.* Mr. *Boylstone* in his first account says, The Small Pox was an *awful* Distemper, whereof so many died as gave an awful Prospect. In his *assuming Dedication* to the *Princes of Wales*, he says the reason of his undertaking Inoculation was, because the Small Pox raged in *New-England* with the utmost Violence : let us recollect and we may find that 22d July 1721 the *Select-Men* declare that only 17 by that time had died of it, the Small Pox had then been in Town about three Months, and this was near a Month after Inoculation began, at that time so far as we could investigate about 1 in 10 died of it ; how few Popular Fevers have been so favourable, witness that *Febris mali moris* Epidemical here in the Fall. Dr. *Mather* in his Letters published in *London*, gives the reason why they used no precaution: because in the natural way it raged with the *utmost fury*, and to make his assertion good, says that of something more than 5000, de-

dedumbents near 900 died, which is 1 in 5. 5 or 18 per ct. by the fallacy of using the remotest round numbers in each estimate, he *misrepresents* the case very much : the true numbers, as I had them from Mr. *Salter* were out of 5989, died 844 (or in the nearest round numbers *out of 6000, dy'd 850,*) which is Something less than 1 in 7 or 14 per ct. Mr. *Boylstone* with his usual candor, in his estimates makes use of round numbers to a pitch much exceeding this ; In his account reckoning up the *dismal Symptoms* which attend the natural Small Pox, he endeavours to make the world believe, *That in Boston, A. 1721. near one hundred persons had lost one Eye,* I have made diligent enquiry among the Practitioners and others, but cannot muster up near a score ; and some of those not from the violence of the Distemper, as in two Daughters of Capt. R---- Patients to Mr. *Pemberton*, who had a kind distinct sort, with an accidental Small Pox *Pustule upon the Pupil of the Eye.* How inhumane is it in affairs of life and death thus to trifle with Mankind, to indulge a humour, or to serve a base end, and how suspected must all accounts be that come from such hands.

As *cheerfulness of mind* is the best preparative for, and restorative in the Small Pox ; for the comfort of those who have not had the Small Pox, I shall make an estimate of the *net Small Pox deaths* in Boston, A. 1721. There died that year of all distempers 1102. whereof 844 were Small Pox, is only 258 of other diseases ; but at a *medium* of 6 years preceeding, A. 1721. there

there dyed *per. an.* 359, and at a *medium* of 6 years following, *A.* 1722. (I do not include *A.* 1722. because the *premature deaths* of 1721. had much lessened the burials for that year) there dyed 411: the mean is 385. from which deduct the above 258, remains 127 deaths of *Valetudinarians* who (if we may so express it) must have dyed that year of other ails: or if we compute thus *A.* 1722. dyed only 273, therefore the former year had *anticipated* this 118 of its due Burials; the *medium* of both computations is 122, which deducted from 5989 and from 844 leaves 722 deaths in 5867 is something more than 1 in 8. To reduce the Small Pox *mortality* further let us consider, 1. The disadvantage of its *prevailing in the Autumn* or Fall, the most Sickly time of the year. 2. The Small Pox had been absent 20 years, and consequently a great proportion of *Adults* to have it, in whom *Chronical ails* might be formed; where it frequently comes, *Children* are generally its subjects, and on that account not so mortal. 3. By *Inoculation* the numbers of the infected were in all parts of the Town so increased, that they could *not be well attended*; perhaps the numbers rendered the *contagion more intense*, for near 90 dyed of *Purple Spots and other cruentous colliquations*. Had not those disadvantages concurred, I do almost persuade my self, not above 1 in 10 would have dyed; the two former Small Pox times were more favourable, *A.* 1690 and 1702 as Mr. Colman in his Book observes: and considering that from the Settling of *Boston* which is now 100 years, the Small Pox hath

afflicted

afflicted the Town only six times; *A.* 1649, 1666, 1678, 1690, 1702, & 1721. I cannot see any reason to magnifie the chance, and risque which a *Boston* man has of dying by the Small Pox. Dr. *Nettleton* of *Hallifax*, Dr. *Whitaker* of *Chichester*, and Dr. *Williams* of *Heverford-west*. For the year 1721. make the Small Pox deaths in their Neighbourhood 1 in 5, it certainly must have been with them a malignant constitution that year. Accidental Years or Times are not to be induced in forming general estimates; as for instance, *A.* 1721. In *Rhode-Island*, (a Neighbouring Plantation) out of 30 who had the Small Pox and were sent to *Harbour-Island*, only one person dy'd, without any other advice than the care of a Nurse.

THE advantages of Inoculation. 1 The Small Pox received by *Incisions* from the experience of Some years, *abstractedly* considered, is found not so Mortal and the Symtoms generally more favourable than when it is received by accidental contagion. 2 One may take the advantage of *benign* Small-Pox constitution, and a favourable Season of the year to receive it. 3 The Body may be prepared and so secure our selves from being taken at a disadvantage and surprize, it is an advantage to know that we are to have a distemper 7 or 8 days before it seizes us. 4. It removes that dread and anxiety which is a great uneasiness to some who have not had the Small-Pox.

THE Royal Family by their Example, have obviated the Suspicion, which made the Practitioners here

here decline it formerly, I mean of its being Criminal. I find *the Practitioners in Town* do generally resolve to perform the Operation when required, but without perswading or diswading; so that those who are so inclined will have a better chance and choice without being obliged to expose themselves to a *Rash Operator*; however safe this method may be, discretion and care are necessary, out of Mr. *Boylstons* 72 or 73 *Roxbury Inoculated Patients* (Mr. *White* included) dyed 5: out of Mr. *Thompsons* 28 *Inoculations in the same Towns and season there dyed not one.*

THE Operation of Inoculation is always safe even in the rudest hand; Blood letting is attended with the risque of pricking an Artery, tendon or membrane of the muscle; in this the Skin being elevated nothing lays in the way. The Symptoms in the Inoculated Small-Pox are the same as in the natural, and require the same management.

ALTHO' by Inoculation there is a better chance than by accidental contagion, nevertheless it is not exempted from being precarious, as we have at length exemplified; but as there is no absolute certainty in humane affairs, mankind govern themselves by the greatest probabilities. If it is found a better chance for preserving Life in this Illness, it will not be easy for *Enthusiasts* and such like *divines* to make the world believe it a Sin; thus some *Turks* and many of our Neighbours, altho' rigorous *predestinarians*, at the cry of Small Pox malignity, do fly to it as a refuge. Suppose an Epidemical and mortal

mortal *Diarrhæa* or *Dysentery* rage in a place, if I can carry of its proper *Pabulum* by *Catharticks*, which is an Analagous artificial Distemper of the same Species may it not be done? an impending periodical *Hæmorrhage* may it not be diverted by an Artificial V. S. The adequate Analogy of this, puts me in mind of the fallacy of an argument commonly used by the Inoculators, *Artificial V. S. Catharticks, drawing of Teeth, cutting of Corns, &c. have been the occasions of deaths, must they be disused?* In these some accident in the Operation is to blame, not nature prematurely set at work to acquire an acute distemper by a safe Operation; A preventive Vomit, Purge, &c. affects only my self not my Neighbour.

Seeing at present the most zealous Inoculator does not pretend that there is any absolute certainty in this affair, a Country retreat in my Judgment, may be advisable to the following conditions of persons. 1. To those who are much advanced in years, who in the common course of nature may not survive the next return of this contagion; the infirmities of old age is a disadvantage likewise to be considered. 2. Pregnant women; and in general all of the Fair Sex whose buisness can allow of a Country retirement for some months once in 12 or 20 years, and whose faces are some part of their care and concern, some faces having suffered last Inoculation time. 3. The consumptive and bad habits, whose crazy fabricks cannot without a considerable risque, stand the shock of an acute distemper. 4. Infants, whose green and tender

age with the incidents of *crudities, Formina's, Teething, &c.* is of it self precarious, without the accumulation of a Small Pox illness. 5. *Indians*, few of them are observed to survive the Small-Pox in the natural way, & therefore are not without considerable hazard in the other way. 6. *Some particular Families of Whites*, who have something peculiar in their constitution that cannot bear this infection (fire is not always as the flame from whence it is derived, but as the fuel to which it is applied) we have had instances of this, Mr. *White* and his Sitter both died by Inoculation, the Family of *W--bs* suffered much, &c. By some singularity of temperament, some are proof against the Pocky contagion, to others it is always mortal. 7. *The exceedingly Timorous* need not to be mentioned, it is to be supposed that fear will give them Wings.

THESE who are in *good Health*, and not in any of these circumstances, are *fit subjects for Inoculation*, more especially whose business requires them to be in foreign parts where the Small Pox always more or less prevails. Since the practice is not Criminal, they who from a publick Spirit undergo the experiment, may be reckoned to essay the *benefit of Mankind* for generations to come.

The best preparation for the Small Pox to be received either by accident or by incisions is to keep the mind as chearful, & the body as healthful as we can. *The symptoms of health* are a good Stomach, easie digestion, regular pulse, quiet and undisturbed Sleep.